

REMARKS/ARGUMENTS

This Amendment is submitted in response to the Final Office Action dated November 14, 2006, and within the TWO MONTH period for reply extending to January 16, 2007. Please note that January 14, 2007, fell on Sunday, and January 15, 2007, was a
5 Federal Holiday. The current status of the claims is summarized below.

Claims 1-20 are pending following entry of this Amendment.

Rejections under 35 U.S.C. 103

Claims 1, 3, 5, 6, 9, 11, 12, 13, 14, 18, and 20 were rejected under 35 U.S.C.
10 103(a) as being unpatentable over Chen (U.S. Patent Application Publication No. US 2005/0188123 A1) in view of Umesh et al. ("Umesh" hereafter) (U.S. Patent Application Publication No. US 2004/0137952 A1). These rejections are traversed.

Claims 2, 10, and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Umesh in view of Sawafta et al. ("Sawafta" hereafter) (U.S. Patent
15 Application Publication No. US 2004/0019432 A1). These rejections are traversed.

Claims 4 and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Umesh in view of Martin et al. ("Martin" hereafter) (U.S. Patent Application Publication No. US 2005/0089012 A1). These rejections are traversed.

Claims 7, 8, 16, and 17 were rejected under 35 U.S.C. 103(a) as being
20 unpatentable over Chen in view of Umesh in view of Applicant's Admitted Prior Art (AAPA). These rejections are traversed.

Independent Claims 1, 9, and 18

Argument 1: The combination of Chen and Umesh does not teach generation and transmission of an alignment signal that represents a dword to be ignored by internal logic of a target transceiver.

5 The Office has asserted that the "interval marker" of Chen is equivalent to an alignment signal as recited in each of independent claims 1, 9, and 18. Chen teaches a system and method for inserting interval markers in a data stream. Chen [0007] states that the interval marker insertion scheme can be employed within the iSCSI protocol as described in the iSCSI specification available from the IETF under the designation "draft-
10 ietf-ips-iscsi-20.txt" dated January 19, 2003. Chen [0011] further states that the interval markers may be used as a Fixed Interval Marker (FIM) as defined in the iSCSI specification. Chen [0011] also states that the interval marker insertion scheme can be used with other transmission protocols where interval markers or delimiters are required. However, Chen [0011] only references the iSCSI specification to provide a description of
15 what an interval marker actually represents within the context of Chen's interval marker insertion scheme. Therefore, Chen does not teach or suggest an interpretation of interval marker beyond what is disclosed by Chen and disclosed by the iSCSI specification.

Appendix A of the iSCSI specification states the following:

20 "Appendix A. Sync and Steering with Fixed Interval Markers
This appendix presents a simple scheme for synchronization (PDU boundary retrieval). **It uses markers that include synchronization information placed at fixed intervals in the TCP stream.**

25 A Marker consists of:

Byte /	0	1	2	3
	0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7
30	+-----+-----+-----+-----+			
	0 Next-iSCSI-PDU-start pointer - copy #1			
	+-----+-----+-----+-----+			
	4 Next-iSCSI-PDU-start pointer - copy #2			
35	+-----+-----+-----+-----+			

The Marker scheme uses payload byte stream counting that includes

every byte placed by iSCSI in the TCP stream except for the markers themselves. It also excludes any bytes that TCP counts but are not originated by iSCSI.

5 Markers MUST NOT be included in digest calculation.

10 The Marker indicates the offset to the next iSCSI PDU header. The Marker is eight bytes in length and contains two 32-bit offset fields that indicate how many bytes to skip in the TCP stream in order to find the next iSCSI PDU header. The marker uses two copies of the pointer so that a marker that spans a TCP packet boundary should leave at least one valid copy in one of the packets.

15 The inserted value is independent of the marker interval."

As indicated in Appendix A of the iSCSI specification, the interval marker includes synchronization information. Specifically, the interval marker provides information on how many bytes to skip in the TCP stream in order to find the next iSCSI Protocol Data Unit (PDU) header. Additionally, Chen [0011] states that "The iSCSI specification requires that data blocks are dword aligned and that Fixed Interval Markers are required at fixed intervals for data flow management." Based on the foregoing, it is clear that interval markers, as discussed by Chen, include data for locating PDU headers. Therefore, the interval markers, as discussed by Chen, are in fact processed by the target transceiver in a data transmission in order to manage data flow.

25 Each of independent claims 1, 9, and 18 recite that the alignment signal represents a dword to be ignored by internal logic of the target transceiver. As discussed above, the interval marker of Chen includes information used for data flow management. The interval marker of Chen is processed by the internal logic of the target transceiver to extract and utilize the information regarding how many bytes to skip in the TCP stream in
30 order to find the next iSCSI PDU header. Therefore, in contrast to the Office's assertion, the interval marker of Chen does not teach or suggest the alignment signal representing a dword to be ignored by internal logic of the target transceiver. It should be noted that in applying the combination of Chen and Umesh to reject claims 1, 9, and 18, respectively,

the Office has relied solely upon Chen to teach the alignment signal representing a dword to be ignored by internal logic of the target transceiver.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). Based at least on the foregoing discussion, the Applicants submit that all the limitations of claims 1, 9, and 18 are not taught or suggested by the combined prior art. Therefore, the Applicants request that the Office withdraw the rejections of claims 1, 9, and 18 under 35 U.S.C. 103. The Applicants provide additional reasons below as to why claims 1, 9, and 18 are not rendered *prima facie* obvious by the combination of Chen and Umesh.

Argument 2: The combination of Chen and Umesh does not teach a counter configured to sequentially modify a count value in accordance with an associated clock signal.

The Office has asserted that the buffer count (BC) of Chen teaches the count value as recited in each of claims 1, 9, and 18. The Office has also asserted that Chen [0059] teaches sequentially changing the value of BC in accordance with a clock signal, as recited in each of claims 1, 9, and 18.

Chen [0033] defines BC as the current number of registers in buffer 402 that contain valid data. Chen [0033] teaches that the value of BC is initialized to zero at the start of the data transfer, and is incremented as buffer 402 is filled. Chen [0037] states that the value of BC is incremented by the width of the data bus (DBin) when new data is read into the buffer 402. Chen [0029] states that DBin can be equal to four (4) 32-bit

dwords (DBin=128 bits). Chen [0029] also states that four (4) 32-bits dwords can be read into the registers of buffer 402 in a single clock cycle. Thus, in a single clock cycle, the value of BC can be incremented by 128.

Chen [0039] states that the value of BC is decremented by the width of the data bus (DBout) when data is read out of the buffer 402. Chen [0029] states that DBout can be equal to four (4) 32-bit dwords (DBout=128 bits). Chen [0029] also states that four (4) 32-bits dwords can be read out of buffer 402 in a single clock cycle. Thus, in a single clock cycle, the value of BC can be decremented by 128.

Chen [0042] states that the value of BC is incremented by the size of the interval marker (ML) when an interval marker is inserted into the data stream. Chen (Figure 6) shows that the value of ML can be either one dword (8 bits) or two dwords (16 bits). Because the interval marker is inserted in the data stream in a single clock cycle, the value of BC can be incremented by either 8 bits or 16 bits when an interval marker is inserted into the data stream.

Each of independent claims 1, 9, and 18 requires the count value to be sequentially modified in accordance with a clock signal. Sequential modification of a count value in accordance with a clock signal means that each time the clock signal cycles, a sequential modification is made to the count value. Sequential modification of a count value means modifying a count value according to a sequence, e.g., 1 to 2 to 3 to 4 to 5, etc.; or 9 to 8 to 7 to 6 to 5, etc. As discussed above, Chen teaches that the value of BC is incremented or decremented in various amounts in a given clock cycle depending upon whether data is read into the buffer, data is read out of the buffer, or an interval marker is inserted into the data stream. Chen teaches that the value of BC can be changed in any given single clock cycle by either plus 128 bits, minus 128 bits, plus 8 bits, or minus 16 bits. Therefore, Chen's teachings with regard to the buffer count (BC) simply do

not teach sequential modification of a count value in accordance with a clock signal, as recited in each of claims 1, 9, and 18.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). Based at least on the foregoing discussion, the Applicants submit that all the limitations of claims 1, 9, and 18 are not taught or suggested by the combined prior art. Therefore, the Applicants request that the Office withdraw the rejections of claims 1, 9, and 18 under 35 U.S.C. 103. The Applicants provide additional reasons below as to why claims 1, 9, and 18 are not rendered *prima facie* obvious by the combination of Chen and Umesh.

Argument 3: Neither Chen nor Umesh provide a motivation or suggestion for one of ordinary skill in the art to have combined their respective teachings in the manner suggested by the Office.

Umesh discloses a system for avoiding disconnection of a radio link between a radio base station and a mobile station. In the system of Umesh, a timer is used to monitor a radio signal interval, i.e., an amount of time, that has elapsed since a last communication from the mobile station to the base station. If the radio signal interval exceeds a timer threshold, the antenna at the base station is controlled to expand a width of the directional beam pattern previously used to communicate with the mobile station. Thus, the expansion of the directional beam pattern generated by the base station is intended to enable communication with the mobile station in the event that the mobile station has moved since its last transmission to the base station.

It should be understood that the expansion of the directional beam pattern generated by the base station in response to the timer exceeding the timer threshold represents a modification of a direction beam shape transmitted by the antenna of the base station. It should be further understood that the expansion of the directional beam pattern generated by the base station in response to the timer exceeding the timer threshold does not imply transmission of any particular content in the expanded direction beam. Simply stated, Umesh teaches modification of spatial properties of a radio signal direction beam and does teach a particular type of signal content or modification thereof transmitted via the radio signal directional beam.

Chen teaches a system and method for inserting interval markers in a block-based data stream so as to enable compliance with the iSCSI specification. In contrast to Umesh, Chen is not concerned with radio communication. Also, Chen does not include any teaching related to maintaining a radio link between a base station and a mobile station. Also, in contrast to Chen, Umesh is not concerned with inserting interval markers into a block-based data stream.

For a claim to be rendered prima facie obvious under 35 U.S.C. 103, there must be some suggestion or motivation to modify the reference or to combine the reference teachings. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure. *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Simply stated, there is no suggestion in either Chen or Umesh to have combined their respective teachings in the manner suggested by the Office to reject each of independent claims 1, 9, and 18, under 35 U.S.C. 103. Therefore, the Applicants request that the Office withdraw the rejections of claims 1, 9, and 18 under 35 U.S.C. 103.

Dependent Claims 2-8, 10-17, and 19-20

Because a dependent claim incorporates each and every feature of the independent claim from which it depends, each of dependent claims 2-8, 10-17, and 19-20 is patentable for at least the same reasons discussed above for its respective independent claim. Therefore, the Office is kindly requested to withdraw the rejections of dependent claims 2-8, 10-17, and 19-20 under 35 U.S.C. 103.

The Applicants submit that all of the pending claims are in condition for allowance. Therefore, a Notice of Allowance is requested. If the Examiner has any questions concerning the present Request for Reconsideration, the Examiner is requested to contact the undersigned at (408) 774-6914. If any additional fees are due in connection with filing this Request for Reconsideration, the Commissioner is also authorized to charge Deposit Account No. 50-0805 (Order No. ADAPP271). A duplicate copy of the transmittal is enclosed for this purpose.

Respectfully submitted,
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